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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/057,964

01/29/2002

Kenny Hsiao

SUND 253

3533

7590

07/12/2006

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EXAMINER

HASAN, SYED Y

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/057,964	HSIAO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Syed Y. Hasan	2621	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 -23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/29/2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/23/2003</u> , <u>2/08/2005</u>   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because in line 5 the word "stored" should be changed to "stores". Correction is required.

2. The disclosure is objected to because of the following informality:

The statement " This application incorporates by reference Provisional application Serial No. 90111385, Filed May 11, 2001" (page 1, line 2 – 3) is inaccurate. A foreign application priority dated May 11, 2001 (TW) has been granted to this application. Provisional application should be modified to foreign application.

Appropriate correction is required.

3. The background of the invention of the disclosure is objected to because in (page 1, line 2) the word "There" should be changed to "This". Correction is required.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tojo (US 2003/0086021 A1) in view of Nakatani et al (US 6118924).

(1) with regards to claim 1, Tojo discloses

A method of digital video capture for capturing video data to a computer

system, the method comprising the following steps

(a) reading the video data (figure 2, 201, page 2, para 0022) further clarifying “a moving-picture input unit 201 is for inputting a moving picture captured from the video camera 110”

(b) detecting the video data (figure 2, 202, page 2, para 0022) further clarifying “ a frame extraction unit 202 successively extracts frames from which constitutes the the entered moving picture in regular order” and determining scene change (figure 2, 203, page 2, para 0022) “A scene change discrimination unit 203 examines each frame to discriminate scene change in a moving picture and using an interframe –similarity calculation unit 204”

(c) splitting ( page 2, 203, para 0022) further clarifying “ a scene-change discrimination unit 203” implying the splitting of the data, and storing the video data into a plurality of video files. (figure 2, 205, page 2, para 0022) further clarifying “ a scene change information unit 205 stores information relating to a scene change”

Tojo discloses all of the subject matter above, except determining file size of the video data.

Nakatani et al in the same field of endeavor teaches determining file size of the video data (figure 18, 105, column 32, lines 26 –28) further clarifying “the control unit 105 assigns an area having a size greater than the predetermined size” and (column 32, lines 39 – 41) further clarifying “the control unit 105 sends a file identifier and a parameter indicating the “time insuring” quality specified as the recording condition to the AV data recording unit 210”

It is desirable to determine the size of the video data to establish the recording space. The reason for this is that estimating the size of the video file and storing them as whole video files ensures appropriate capture of the entire scene so that efficient use of the file size is established and the overflow of data is prevented. Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention was made to include the design as taught by Tojo in combination of Nakatani et al to determine the size of the video data.

(2) with regards to claim 2, Tojo discloses all of the subject matter above, except the method of digital video capture wherein the method further comprises setting up a default size of video data before estimating the file size of the video data.

Nakatani et al in the same field of endeavor teaches the method of digital video capture wherein the method further comprises setting up a default size of video data before estimating the file size of the video data (column 28, lines 59 – 63) in order to “ensure uninterrupted reproduction of AV data and record various types of data including AV data together and efficiently” (column 2, lines 11 – 13)

Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention was made to set up a default size of video data before estimating the file size of the video data as taught by Nakatani et al in the invention of Tojo in order to ensure uninterrupted reproduction of AV data and record various types of data including AV data together and efficiently.

(3) with regards to claim 3, Tojo further discloses

The method of digital video capture wherein the video data comprises at least a

first scene and a second scene.(page 3, para 0045)

(4) with regards to claim 4, Tojo further discloses

The method of digital video capture wherein the first scene and the second scene further comprise a plurality of frames respectively (page 3, para 0045)

(5) with regards to claim 5, Tojo further discloses

The method of digital video capture wherein the estimate of scene change further comprises calculating an interval of recording time between a frame and its adjacent frame. (page 3, para 0046)

(6) with regards to claim 6, Tojo further discloses

The method of digital video capture wherein the interval between the last frame of the first scene and the first frame of the second scene is greater than the interval between 2 adjacent frames of others (page 3, para 0046)

(7) with regards to claim 7, Tojo further discloses

The method of digital video capture wherein the determination of scene change further comprises distinguishing the difference between object characters of a frame and its adjacent frame (page 3, para 0046)

(8) with regards to claim 8, Tojo further discloses

The method of digital video capture wherein in said frames of the first scene and frames of the second scene are split into different video files (page 3, para 0046)

(9) with regards to claim 9, Tojo further discloses

The method of digital video capture wherein frames of the first scene are stored

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in the same video file (page 3, para 0046)

(10) with regards to claim 10, Tojo further discloses

The method of digital video capture wherein frames of the second scene are stored in the same video file. (page 3, para 0051)

(11) with regards to claim 11, Tojo further discloses

A method of digital video capture is for capturing video data to computer system, wherein the computer system comprises a storage unit, the method comprising the following steps:

(a) reading a plurality of frames of the video data; (figure 2, 201, page 2, para 0022)

(c) detecting scene change between the frames; (figure 2, 203, page 2, para 0022)

(d) splitting the video data into a plurality of video files; (figure 2, 203, page 2, para 0022) and

(e) storing the video files to a storage unit. (figure 2, 205, page 2, para 0022)

Tojo discloses all of the subject matter above, except estimating the file size of the video data.

Nakatani et al in the same field of endeavor teaches estimating file size of the video data (figure 18, 105, column 32, lines 26 –28) in order to “ensure uninterrupted reproduction of AV data and record various types of data including AV data together and efficiently” (column 2, lines 11 – 13)



Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention was made to set up a default size of video data before estimating the file size of the video data as taught by Nakatani et al in the invention of Tojo in order to ensure uninterrupted reproduction of AV data and record various types of data including AV data together and efficiently

(12) with regards to claim 12, Tojo discloses all of the subject matter above, except the method of digital video capture wherein the method further comprises setting up a default size of video data before estimating the file size of the video data.

Nakatani et al in the same field of endeavor teaches the method of digital video capture wherein the method further comprises setting up a default size of video data before estimating the file size of the video data (page 28, lines 59 – 63) in order to “ensure uninterrupted reproduction of AV data and record various types of data including AV data together and efficiently” (column 2, lines 11 – 13)

Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention was made to set up a default size of video data before estimating the file size of the video data as taught by Nakatani et al in the invention of Tojo in order to ensure uninterrupted reproduction of AV data and record various types of data including AV data together and efficiently.

(13) with regards to claim 13, Tojo further discloses

The method of digital video capture wherein the method continues to proceed with detecting scene change between the frames; (figure 2, 203, page 2, para



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0022) when the size of the captured video data is greater than the default value; the method goes back to reading a plurality of frames of the video data; (figure 2, 201, page 2, para 0022) when the size of the captured video data is less than the default value.

(14) with regards to claim 14, Tojo further discloses

The method of digital video capture wherein the video data comprises at least a first scene and a second scene. (page 3, para 0045)

(15) with regards to claim 15, Tojo further discloses

The method of digital video capture wherein the method further comprises calculating an interval of recording time between a frame and its adjacent frame (page 3, para 0046)

(16) with regards to claim 16, Tojo further discloses

The method of digital video capture wherein the interval between the last frame of the first scene and the first frame of the second scene is greater than the interval between 2 adjacent frames of others. (page 3, para 0046)

(17) with regards to claim 17, Tojo further discloses

The method of digital video capture wherein the determination of scene change further comprises distinguishing the difference between object characters of a frame and its adjacent frame. (page 3, para 0046)

(18) with regards to claim 18, Tojo further discloses

The method of digital video capture wherein in frames of the first scene and frames of the second scene are split into different video files. (page 3, para 0046)

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(19) with regards to claim 19, Tojo further discloses

The method of digital video capture wherein frames of the first scene are stored in the same video file. (page 3, para 0051)

(20) with regards to claim 20, Tojo further discloses

The method of digital video capture wherein frames of the second scene are stored in the same video file. (page 3, para 0046)

(21) with regards to claim 21, Tojo discloses

A device of digital video capture for capturing video data stored in a tape to a computer system, wherein the computer system comprises

(a) a storage unit, (figure 2, 209, page 2, para 0022) further clarifying “a frame storage unit 209 stores frames”

the device of digital video capture comprising:

(b) a reading unit for reading video data; (figure 2, 201, page 2, para 0022) further clarifying “a moving-picture input unit 201”

(c) a detection unit (figure 2, 202, page 2, para 0022) further clarifying “a frame extraction unit 202 successively extracts frames from which constitutes the the entered moving picture in regular order” and detecting changes of scenes; (figure 2, 203, page 2, para 0022) herein referred to as “a scene-change discriminate unit 203”

a splitting unit for splitting video data into a plurality of video files (figure 2, 203,

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page 2, para 0022) herein referred to as “a scene-change discrimination unit 203” and storing the video files into the storage unit. (figure 2, 205, page 2, para 0022) further clarifying “ a scene change information unit 205 stores information relating to a scene change”

Tojo discloses all of the subject matter above, except determining file size of the video data.

Nakatani et al in the same field of endeavor teaches determining file size of the video data (figure 18, 105, column 32, lines 26 –28) further clarifying “the control unit 105 assigns an area having a size greater than the predetermined size” and (column 32, lines 39 – 41) further clarifying “the control unit 105 sends a file identifier and a parameter indicating the “time insuring” quality specified as the recording condition to the AV data recording unit 210”

It is desirable to determine the size of the video data to establish the recording space. The reason for this is that estimating the size of the video file and storing them as whole video files ensures appropriate capture of the entire scene so that efficient use of the file size is established and the overflow of data is prevented. Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention was made to include the design as taught by Tojo in combination of Nakatani et al to determine the size of the video data.

(22) with regards to claim 22, Tojo further discloses

The device of digital video capture wherein the video data comprises a plurality of frames (page 2, para 0029) further clarifying “ group of past frames is a single frame

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or a plurality of frames”

(23) with regards to claim 23, Tojo further discloses

The device of digital video capture wherein the reading unit further comprises a memory for storing the frames temporarily ( page 2, para 0022) further clarifying “ a frame storage unit 209 stores frames extracted by the frame extraction unit 202’ this implies that the frames are temporarily stored for examination.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant’s disclosure.

Nagasaki et al (US 6400890) discloses image retrieval method and apparatus thereof.

Stewart et al (US 5649046) discloses video processing system with random access framestore for video editing.

Hong et al (US 5532833) discloses method and system for displaying selected portions of a motion video image.

Fujita et al (US 6321024) discloses control method for detecting change points in motion picture images.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed Y. Hasan whose telephone number is 571-270-1082. The examiner can normally be reached on 9/8/5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S Y H

06/15/2006



**SHUWANG LIU**  
**PRIMARY EXAMINER**